INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/025589

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/11 C12P19/34 C07H21/02 C07H21/04 A01N43/04
A61K31/713

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, BIOSIS, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 00/05366 A (UNIVERSITY OF OTTAWA; KORNELUK, ROBERT, G; HOLCIK, MARTIN; LISTON, PET) 3 February 2000 (2000-02-03) page 9, line 23 - page 10, line 4	1-32,34
Y	WO 02/44321 A (MAX-PLANCK-GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V; TUSCHL,) 6 June 2002 (2002-06-06) claims 1-47	1-32,34

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
22 June 2005	23. 09. 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Barnas, C

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/025589

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ELBASHIR S M ET AL: "Functional anatomy of siRNAs for mediating efficient RNAi in Drosophila melanogaster embryo lysate" EMBO JOURNAL, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 20, no. 23, 3 December 2001 (2001-12-03), pages 6877-6888, XP002225998 ISSN: 0261-4189 page 6881, right-hand column, paragraph 2 - page 6882, left-hand column, paragraph 1 page 6884, left-hand column, paragraphs 3,4 page 6885, left-hand column, paragraph 4 - right-hand column, paragraph 1	1-32,34
Y	WO 00/44895 A (KREUTZER, ROLAND; LIMMER, STEPHAN) 3 August 2000 (2000-08-03) page 6, line 30 - page 7, line 7 page 18, lines 13-29 claims 27,28,64,65,100,101	1-32,34
Y	PARRISH S ET AL: "Functional anatomy of a dsRNA trigger: Differential requirement for the two trigger strands in RNA interference" MOLECULAR CELL, CELL PRESS, CAMBRIDGE, MA, US, vol. 6, no. 5, November 2000 (2000-11), pages 1077-1087, XP002226298 ISSN: 1097-2765 figures 5,6	1-32,34
P,X	LIMA R T ET AL: "RNAi mediated downregulation of bcl-2 and xlAP may have therapeutical potential in human breast adenocarcinoma." EJC SUPPLEMENTS, vol. 1, no. 5, September 2003 (2003-09), page S292, XP009049224 & 12TH ECCO (EUROPEAN CANCER CONFERENCE); COPENHAGEN, DENMARK; SEPTEMBER 21-25, 2003 ISSN: 1359-6349 abstract	1,3-9, 23,24, 27-32,34

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/025589

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	CHAWLA-SARKAR M ET AL: "Trail-resistant cells sensitized to apoptosis by selective down regulation by siRNAs to inhibitors of apoptosis bcl-2, FLIP, survivin or XIAP." EUROPEAN CYTOKINE NETWORK, vol. 14, no. Supplement 3, September 2003 (2003-09), page 112, XP009042059 & ANNUAL MEETING OF THE INTERNATIONAL CYTOKINE SOCIETY; DUBLIN, IRELAND; SEPTEMBER 20-24, 2003 ISSN: 1148-5493 abstract	1,3-9, 23,24, 27-32,34
P,X	BURSTEIN EZRA ET AL: "A novel role for XIAP in copper homeostasis through regulation of MURR1." THE EMBO JOURNAL. 14 JAN 2004, vol. 23, no. 1, 14 January 2004 (2004-01-14), pages 244-254, XP002332238 ISSN: 0261-4189 page 252, right-hand column, paragraph 5 figure 5A published online 18. December 2003	1,3-9, 23,24, 27-32,34
P,X	LIMA RAQUEL T ET AL: "Specific downregulation of bcl-2 and xIAP by RNAi enhances the effects of chemotherapeutic agents in MCF-7 human breast cancer cells" CANCER GENE THERAPY, vol. 11, no. 5, May 2004 (2004-05), pages 309-316, XP002332239 ISSN: 0929-1903 page 310, left-hand column, paragraph 1	1,3-9, 23,24, 27-32,34

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/025589

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-32, 34

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-32, 34

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference as described in claim 1.

---

2. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs: 1-36, 468-503.

---

3. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:37-72, 504-539.

---

4. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:73-108, 540-575.

---

5. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:109-144, 576-611.

---

6. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:145-180, 612-647.

---

7. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:181-216, 648-683.

---

8. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:217-252, 684-719.

---

9. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:253-288, 720-755.

---

10. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:289-324, 756-791.

---

11. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:325-360, 792-827.

---

12. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:361-396, 828-863.

---

13. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:397-432, 864-899.

---

14. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:433-467, 900-934.

---

15. claims: 33, 35 (part)

A double stranded short interfering nucleic acid (siNA) molecule that directs cleavage of a XIAP RNA via RNA interference wherein said siNA comprises any of SEQ ID NOs:935-1056.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/025589

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 0005366 A	03-02-2000	CA	2336707 A1	03-02-2000
		DE	69916285 D1	13-05-2004
		DE	69916285 T2	21-04-2005
		EP	1100900 A2	23-05-2001
WO 0244321 A	06-06-2002	AU	3574402 A	11-06-2002
		CA	2429814 A1	06-06-2002
		ES	2215494 T1	16-10-2004
		HU	0302557 A2	28-10-2003
		JP	2004526422 T	02-09-2004
		TR	200401292 T3	21-07-2004
WO 0044895 A	03-08-2000	AT	222953 T	15-09-2002
		AT	297463 T	15-06-2005
		AU	778474 B2	09-12-2004
		AU	3271300 A	18-08-2000
		AU	2005201044 A1	07-04-2005
		CA	2359180 A1	03-08-2000
		DE	10080167 D2	28-02-2002
		EP	1144623 A1	17-10-2001
		ES	2182791 T3	16-03-2003
		JP	2003502012 T	21-01-2003